

**IN THE SPECIFICATION:**

Please replace the Summary of the Invention starting on page 3, with the following Summary:

The present invention relates to two cDNA clones, designated to a defensin gene, *PepDef*, and a thionin-like gene, *PepThi*, the sequences of which are depicted in SEQ ID No. ~~1 and No. 3~~, No. 3 and No. 1, respectively. The anthracnose fungus, *C. gloeosporioides*, interacts incompatibly with ripe fruits of pepper (*Capsicum annuum*). It interacts compatibly with the unripe-mature fruits. We isolated *PepDef* and *PepThi* expressed in the incompatible interaction by using mRNA differential display method. Both genes were developmentally regulated during fruit ripening, organ-specifically regulated, and differentially induced during the compatible and incompatible interactions. The expression of *PepThi* gene was rapidly induced in the incompatible-ripe fruit upon fungal infection. The fungal-inducible *PepThi* gene is highly inducible only in the unripe fruit by salicylic acid. In both ripe and unripe fruits, it was induced by wounding, but not by jasmonic acid. The expression of *PepDef* gene is enhanced in the unripe fruit by jasmonic acid, while suppressed in the ripe fruit. These results suggest that both small and cysteine rich protein genes are induced via different signal transduction pathways during fruit ripening to protect the reproductive organs against biotic and abiotic stresses. The *PepDef* and *PepThi* can be cloned into an expression vector to produce a recombinant DNA expression system suitable for insertion into cells to form a transgenic plant transformed with these genes. In addition, the *PepDef* and *PepThi* genes of this invention can be also used to produce transgenic plants that exhibit resistance against phytopathogens, including fungi, bacteria, viruses, nematode, mycoplasma-like organisms, parasitic higher plants, flagellate protozoa, and insects.

Please replace the second full paragraph on page 6 and the third paragraph on

page 6 extending to page 7 (under the section entitled "Detailed Description of the Invention") with the following paragraphs:

The *PepThi* cDNA is 506 bp in length with 9 bp of 5'-untranslated region and 245 bp of 3'-untranslated region including the poly(A) tail (GenBank AF112443). The *PepThi* clone represented a full-length cDNA of the 0.5 kb transcript identified by RNA gel blot analysis. The cDNA contained one open reading frame encoding a polypeptide of 9.5 kDA with 84 amino acids. The deduced amino acid sequence of *PepThi* (SEQ ID No. 4) (SEQ ID No. 2) contained an N-terminal secretory signal peptide that was cleaved after glycine at position 25 (Figure 1). *PepThi* is a Cys-rich polypeptide containing the consensus Cys arrangement -C(. . .)C-X-X-X-C(. . .)G-X-C(. . .) C-X-C-.

The *PepDef* cDNA is 225 bp except 5'-untranslated region and 3'-untranslated region including the poly(A) tail (X95363). The *PepDef* clone represented a full-length DNA of the 0.45 kb transcript identified by RNA gel blot analysis. The cDNA contained one open reading frame encoding a polypeptide of 8.5 kDA with 75 amino acids. The deduced amino acid sequence of *PepDef* (SEQ. ID. [[3]] 4) contained an N-terminal secretory signal peptide that was cleaved after alanine at position 27 (Figure 1). *PepDef* is also a Cys-rich polypeptide containing the consensus Cys arrangement - C(. . .)C-X-X-X-C(. . .)G-X-C(. . .) C-X-C-.